

# Distribution Annual Reporting RIN, 2017-18

Basis of Preparation

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# Introduction

TasNetworks (Tasmanian Networks Pty Ltd, ABN 24 167 357 299) is the owner and operator of the electricity distribution network in Tasmania.

This Basis of Preparation (**BoP**) forms part of the response of TasNetworks to the Regulatory Information Notice (**RIN**) issued in August 2014 by the Australian Energy Regulator (**AER**), under Division 4 of Part 3 of the National Electricity (Tasmania) Law. The Annual Report in RIN is a means of the AER collecting the information required to monitor TasNetworks' compliance with the distribution determination applying to the regulatory control period that commenced on 1 July 2017 (referred to as the current Distribution Determination).

The information and explanatory material included in this BoP relate to TasNetworks' activities as Tasmania's licensed Distribution Network Service Provider (**DNSP**) during the 2017-18 Regulatory Year (referred to throughout this document as the current reporting period).

## AER's Instructions

The AER's instructions in completing the category analysis RIN is to provide a BoP that demonstrates how the information provided in response to the RIN request complies with the requirement of the RIN. The minimum requirements of the BoP as per schedule 1 of the notice are set out in

**Table 1 - AER Requirements of the BoP**

1.1 (d) (i)	demonstrate how the information provided is consistent with the requirements of the notice.
(ii)	explain the source from which we obtained the information provided.
(iii)	explain the methodology we applied to provide the required information, including any assumptions made.
(iv)	explain, in circumstances where we cannot provide actual information: (1) why it was not possible for TasNetworks to provide actual information; (2) what steps we are taking to ensure we can provide the information in the future; (3) if an estimate has been provided, the basis for the estimate, including the approach used, assumptions made and reasons why it is our best estimate, given the information sought in the notice

## Structure of this document

This document is presented in three parts:

### Section 1

- Explanation of compliance to Schedule 1, paragraph 1.1 (a) of the RIN notice as it applies to the financial information provided within the Microsoft Excel workbook attached to the AER's RIN at Appendix B.
- Explanation of compliance to Schedule 1, paragraph 1.1 (b) of the RIN notice as it applies to the non-financial information provided within the Microsoft Excel workbook attached to the AER's RIN at Appendix B.

### Section 2

All additional information requested by the AER in Schedule 1 of the RIN notice:

- Paragraphs 1.1 (c,e,f,g); and
- Paragraphs 1.2 – 1.8.

### Section 3

All additional information requested by the AER in Schedule 1 of the RIN notice:

- Paragraphs 2-10.

## Definitions and interpretation

Aurora	Aurora Energy Pty Ltd, acting in its capacity as the licensed DNSP in Tasmania prior to 1 July 2014
CAM	Cost Allocation Method
DM	TasNetworks' Electronic Document Management System
Gentrack	TasNetworks' Market Systems database
GTech	Distribution Network Service Provider
OTTER	Office of the Tasmanian Economic Regulator
POW	Programme of Work
SAIDI	System Average Interruption Duration Index
SAIFI	System Average Interruption Frequency Index
SCS	Standard Control Services
SDW	Spatial Data Warehouse
SOM	TasNetworks' Service Order Management system
WASP	TasNetworks' program-of-work management system (Works, Assets, Solutions and People)
UG	Underground (cable )
Telecommunications	Encompasses any telecommunications related asset
Secondary Systems	Encompasses protection systems, SCADA and Network Control
Substations Primary Systems	Encompasses power transformers, switchbays, transmission cables and reactive plant
Transmission Lines	Encompasses towers, support structures and conductors
TasNetworks	Refers to Tasmanian Networks Pty Ltd, acting in its capacity as a licensed Distribution Network Service Provider in the Tasmanian jurisdiction of the National Electricity Market.
AER	Australian Energy Regulator
DNSP	Distribution Network Service Provider
RIN	Regulatory Information Notice
DBill	TasNetworks' Market and Billing System
MAIFI	Momentary Average Interruption Frequency Index
Inservice	Outage Management System

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**Section 1:**

Explanation of compliance to Schedule 1, paragraph 1.1 (a) of the RIN notice as it applies to the financial information provided within the Microsoft Excel workbook attached to the AER’s RIN at Appendix B.

Explanation of compliance to Schedule 1 paragraph 1.1 (b) of the RIN notice as it applies to the non-financial information provided within the Microsoft Excel workbook attached to the AER’s RIN at Appendix B.

# Template 2.11     Labour

Table 2.11.: Labour	<b>Consistency of information with the requirements of the RIN</b>  The information provided for labour expenditure is consistent with the requirements of the RIN in that it includes all expenditure used to deliver standard control services that is associated with people.
	<b>Source of information</b> <ul style="list-style-type: none"><li>• TasNetworks Financial Systems</li><li>• TasNetworks Payroll System</li></ul>
	<b>Methodology and assumptions made</b>  labour expenses have been sourced from Tasnetwork’s financial system (SAP. Non-labour costs are sourced from template 8.2 and 8.4 in this RIN.
	<b>Use of estimates</b>  No estimates have been used in the collation and presentation of this information.

Template 3.6

Quality of services

Table 3.6.5: Quality of supply metrics	<b>Consistency of information with the requirements of the RIN</b> The information provided about voltage variations in <i>Table 2.1 – Quality of supply</i> is consistent with the requirements of the Annual Reporting RIN, in that: <ul style="list-style-type: none"><li>the number of overvoltage events and number of customer NMI’s receiving over voltage due to the various causes has been provided where available; and</li><li>variations in voltage at zone substations and at measurement points on feeders are provided where available. Where inaccurate information, or information derived from inaccurate data was present, these sites were regarded as not “measured”, as the reported value would not represent the actual number of variations.</li></ul>
	<b>Source of information</b> <ul style="list-style-type: none"><li>Information about over-voltage was obtained through the customer advocacy claims database;</li><li>Over-voltage due to voltage regulation or other cause information was obtained through the Customer Advocacy Tool (CAT);</li><li>Voltage variation information was obtained from TasNetworks’ historical SCADA measurements of voltages, stored in PI Historian; and</li><li>Voltage excursions according to these requirements were determined through the application of PI analysis to archived voltage measurements stored in TasNetworks’ PI Historian.</li></ul>
	<b>Methodology and assumptions made</b> <ul style="list-style-type: none"><li>The number of over voltage events due to high voltage injection, has been defined as the number of events where a complaint has been received by one or more customer(s);</li><li>The number of customers receiving over voltage due to high voltage injection, has been defined as the number of customer (NMI’s dealt with through claims or insurance, by that event;</li><li>The number of over voltage events - due to lightning is defined as the number of events where a complaint has been received by one or more customer(s);</li><li>The number of customers receiving over voltage due to lightning, has been defined as the number of customer NMI’s that have been dealt with for either claims or insurance, by that event;</li><li>The number of over voltage events - due to voltage regulation or other cause is defined as the number of events where a complaint has been received by one or more customer(s);</li><li>The number of customers receiving over voltage due to voltage regulation or other cause is defined as the number of sites investigated where the complaint is verified as involving over voltage. This is consistent with the value reported in TasNetworks’ OTTER Annual Regulatory Report for the same performance metric; and</li><li>Over-voltage events – due to voltage regulation or other cause and customers receiving over-voltage – due to voltage regulation or other cause will be identical due to our complaint process. Complaints are captured at the suspected site of voltage issue, not on a per customer basis.</li></ul>
	<b>Voltage variation</b> <ul style="list-style-type: none"><li>There are no power quality or event disturbance recording devices installed at any zone substations or on feeders in TasNetworks’ distribution network, which means that it is not possible to record voltage variations that are equal to or less than 10 seconds in length;</li><li>TasNetworks has performed all analysis using 4 second SCADA data and found no reportable events with durations &lt;10 seconds in length – if higher granularity data were available then it is possible events could have been found.</li><li>Zone Substations are defined as any substation that converts from a voltage at or above 33 kV to a voltage below 33 kV, but above 1 kV. Substations that are operated by TasNetworks, in its capacity as a TNSP, and fit this definition, have not been included in this Annual Reporting RIN;</li><li>For one minute and steady state measurements, basis for inclusion of SCADA points as measurements is that the data is sufficiently precise and of high enough resolution that the number of voltage variations reported is representative of the actual number of variations;</li><li>All zone substations have voltage transformers of high precision (with appropriate dead banding) and have SCADA polling with a four second interval;</li><li>Where appropriate, voltage measurements from devices in the distribution network have been included as feeder measurements;</li><li>No recloser SCADA points were included as feeder measurements as the accuracy of their voltage transformers is +2.5% which is inadequate for accurate measurement of voltage variations;</li><li>TasNetworks has three types of voltage regulator sites in its 11 kV and 22 kV network; three phase ground mounted Y-Y units, cooper voltage regulators in “open delta” and cooper voltage regulators in “closed delta” configurations;</li><li>Cooper voltage regulator sites have voltage transformers with a precision of +/- 1%, and many of these sites have SCADA which allows transmission of these voltage measurements. Cooper regulator sites are not configured with fixed time interval polling, but instead use unsolicited polling which means that voltage measurements are only sent when the voltage exceeds a defined dead band of <math>\pm 20</math> V. This results in a variable interval between voltage measurements;</li><li>A small number of three phase voltage regulator sites now have SCADA configured. As this data has been brought into the SCADA Historian it has been included in the analysis.</li><li>For each point the number of measurements has been used to validate the quality of the SCADA point and historian storage. Where the quality of the measurement could not be validated, the measurement has been excluded from analysis;</li><li>For each measurement point that is considered valid, variations outside the standard range</li></ul>

	<p>have been defined as variations from the <i>nominal voltage</i>. This is a change from past practice in TasNetworks’ RIN reporting, as the set-points of many of these terminal or zone substations and downstream voltage regulators have had their set points changed part way through this current reporting period;</p> <ul style="list-style-type: none"><li>• The voltage ranges used are those specified in the Tasmanian Electricity Code (TEC), TasNetworks’ jurisdictional voltage standard. In this standard, voltage ranges are specified for ‘steady state’, and ‘one minute’ variations. The TEC was updated in 2017 and Table 2 of Chapter 8 changed these requirements:<ul style="list-style-type: none"><li>○ ‘Steady state’ voltage variations for 1kV-22kV now refers to AS 61000.3.100 Section 5.2</li><li>○ ‘One minute’ voltages variations for 1kV-22kV are all now +/- 10%.</li></ul></li><li>• AS 61000.3.100 Section 5.2 takes a probabilistic approach to voltage limitations. The minimum and maximum voltage limits are expressed as first and ninety-ninth percentile limitations (V<sub>1%</sub> and V<sub>99%</sub> respectively). The ‘steady state’ limits for voltage variation are therefore taken to be these V<sub>1%</sub> and V<sub>99%</sub> values, despite the standard AS 61000.3.100 allowing voltage changes beyond this range for 2% of the time.</li><li>• The voltage ranges relevant for this RIN submission are:<ul style="list-style-type: none"><li>○ +6% /-10% from the <i>nominal</i> voltage of 11.0 kV or 22.0 kV for steady state variations in zone substation;</li><li>○ +/-10% from the <i>nominal</i> voltage of 11.0 kV or 22.0 kV for 1 minute variations in zone substations; and</li><li>○ +6%/-10% from the <i>nominal</i> voltage of 11.0 kV or 22.0 kV for steady state variations on feeder measurements;</li></ul></li><li>• Where the voltage drops back into the nominal bandwidth, any subsequent excursions are classified as new events. Reductions in the measured voltages values below 1kV are not considered to be variations, as it indicates failure of secondary systems, or loss of supply;</li><li>• Voltage excursions according to these requirements were determined through the application of PI Historian analysis to archived voltage measurements stored in TasNetworks’ PI historian;</li><li>• PI Historian analysis calculations were applied to each of the following measurement types:<ul style="list-style-type: none"><li>○ Voltage Variation Steady State (Voltage Regulator Load A);</li><li>○ Voltage Variation Steady State (Voltage Regulator Load B);</li><li>○ Voltage Variation Steady State (Voltage Regulator Load C);</li><li>○ Voltage Variation Steady State (Voltage Regulator Source A);</li><li>○ Voltage Variation Steady State (Voltage Regulator Source B);</li><li>○ Voltage Variation Steady State (Voltage Regulator Source C);</li><li>○ Voltage Variation 10% 1m (Zone Substation); and</li><li>○ Voltage Variation Steady State (Zone Substation).</li></ul></li><li>• The data from the PI Historian analysis is exported as an XML file, and imported into excel for cleansing and analysis, using excel functions;</li><li>• The number of events at a site is determined by applying the logical OR function to the time series data, for all of the measurements available at site. An excursion of any measurement at a site is counted as an excursion of that site;</li><li>• For zone substations, there is typically a voltage measurement on each bus in the zone substation. For cooper regulator sites, there are two measurements per tank on each site. Open delta regulator sites therefore have four measurements, and closed delta regulator sites have six measurements;</li><li>• Overlapping/duplicate events at each site (from different SCADA points) were identified and excluded;</li><li>• Any events in which the voltage drops to zero at any point were identified and excluded.</li><li>• Any events that occurred where customers were not connected to that supply were excluded from the count;</li><li>• Any event at sites that have been identified as having poor data or measurement quality were identified and excluded; and</li><li>• For one minute variations in zone substations, any event that exceeds one minute in duration is picked up as a steady state variation and would be counted twice. In the table of one minute events, these events are identified and excluded.</li><li>• The percentage of feeders monitored is taken to be the number of feeders with one or more voltage regulator with SCADA communications available.</li></ul>
	<p><b>Use of estimates</b></p> <ul style="list-style-type: none"><li>• No estimates have been used in the collation and presentation of this information..</li></ul>
<p><b>Table 3.6.6: Complaints - Technical quality of supply</b></p>	<p><b>Consistency of information with the requirements of the RIN</b></p> <p>The information provided about complaints regarding technical quality of supply is consistent with the requirements of the Category Analysis RIN, in that:</p> <ul style="list-style-type: none"><li>• the data refers to the complaints made by customers regarding technical quality of supply issues which resulted in an investigation by TasNetworks on their standard of service</li></ul>
	<p><b>Source of information</b></p> <p>The volume of customer complaints received in the current reporting period relating to technical quality of supply has been derived from records kept in the Customer Advocacy Tool, TasNetworks’ customer complaint management tool.</p>
	<p><b>Methodology and assumptions made</b></p> <ul style="list-style-type: none"><li>• The data was extracted from Voltage and Radio Frequency complaints captured in the Customer Advocacy Tool. Each individual element of 3.6.6 has been filtered in order to supply the individual inputs to apply in the current reporting period; and</li><li>• Complaints found to be unsubstantiated are included in the category of ‘Other’.</li></ul>

	<p><b>Use of estimates</b></p> <p>No estimates have been used in the collation and presentation of this information.</p>
<b>Table 3.6.7: Customer service metrics</b>	<p><b>Consistency of information with the requirements of the RIN</b></p> <p>The information provided in relation to customer service metrics is consistent with the requirements of the Annual Reporting RIN, in that:</p> <ul style="list-style-type: none"> <li>the data refers to complaints made by customers regarding their: technical quality of supply, reliability of supply, customer service and connection issues that resulted in investigations by TasNetworks of their standard of service</li> </ul>
	<p><b>Source of information</b></p> <ul style="list-style-type: none"> <li>Information regarding the timely repair of faulty street lights was compiled from SOM for all public lighting faults logged.</li> <li>Information regarding call centre performance was sourced from the OpenScope Contact Centre Enterprise Reporting Tool.</li> <li>The volumes of customer complaints to TasNetworks in the current reporting period have been derived from records kept in the Customer Advocacy Tool, which is TasNetworks’ customer complaint management tool.</li> </ul>
	<p><b>Methodology and assumptions made</b></p> <p><i>Timely provisions of services</i></p> <ul style="list-style-type: none"> <li>TasNetworks has not reported against 3.6.7.1 since the 2012-13 regulatory period. Since 2013-14, we have populated a template that took these values from the 1b Table data which TasNetworks was not obliged to complete as that metric does not form part of our STPIS calculations.</li> <li>Number of connections made is the total number of New Connection service orders completed.</li> <li>Number of connections not made on or before agreed date includes the total number of New Connection service orders completed after their guaranteed service date or after their agreed scheduled date (whichever is applicable).</li> </ul> <p><i>Timely repair of streetlights</i></p> <ul style="list-style-type: none"> <li>The count of faults for the current reporting period has been extracted to form a dataset of reported faults;</li> <li>The data captured included reported date and completed date and subtracting the reported date from completed date provided the days taken to repair each fault. Only working days were included in the count of days taken to repair each fault;</li> <li>A count was made of the number of faults where days to repair was greater than 7 business days to provide the number of faults repaired by the fix date;</li> <li><i>Average days to repair</i> is the average of the days to repair faults for the full year; and</li> <li>The number of lights was sourced from the public lighting Table 4.1 in TasNetworks’ response to the current Category Analysis RIN.</li> </ul> <p><i>Call centre performance</i></p> <ul style="list-style-type: none"> <li>OpenScope collates the data and can demonstrate call volumes and wait times for calls that enter the fault queue;</li> <li>Calls to call centre fault line and Calls to fault line answered within 30 seconds are taken from table 6.6 <i>STPIS Customer Service</i> of this RIN; and</li> <li>Openscape is unable to report on the number of overload events, therefore this has been listed as n/a. The telephony system capacity is 240 fault calls at any one time, anecdotally, we have not had this many calls in the queue at one time but cannot provide a report or source data to demonstrate this.</li> </ul> <p><i>Number of customer complaints</i></p> <ul style="list-style-type: none"> <li>The data was extracted from the customer complaints information captured in the Customer Advocacy Tool to populate the number of customer complaints;</li> <li>The volume of data pertained to all customer complaints resolved in the current reporting period; and</li> <li>The data was filtered in order to identify each of the five individual complaint topics listed.</li> </ul>
	<p><b>Use of estimates</b></p> <p>No estimates have been used in the collation and presentation of this information.</p>
<b>Table 3.6.8: Network feeder reliability</b>	<p><b>Consistency of information with the requirements of the RIN</b></p> <p>The information provided regarding customer numbers is consistent with the requirements of the Annual Reporting RIN, in that:</p> <ul style="list-style-type: none"> <li>TasNetworks has classified its distribution feeders as per the AER’s instructions and definitions for feeder categorisation in the AER’s STPIS scheme. Sub-transmission feeders have been excluded;</li> <li>energy not supplied was calculated using average feeder demand derived from feeder maximum demand and an estimated load factor, divided by the number of customers on the feeder (Economic Benchmarking RIN Table 3.6.2);</li> <li>TasNetworks has interpreted excluded events as those specified under clauses 3.3 and 5.4 of the AER’s STPIS scheme;</li> <li>TasNetworks has interpreted momentary outages due to feeder outages as events that affected the whole feeder, e.g. operation of the feeder circuit breaker. Any feeder section</li> </ul>

	<ul style="list-style-type: none"><li>outages have been excluded from the reported MAIFI, e.g. operation of a recloser; and</li><li>TasNetworks has classified feeders as having low reliability as per the AER’s instructions and definitions for the Annual Reporting RIN.</li></ul>
	<b>Source of information</b> The information regarding network feeder reliability has been sourced from the Inservice, SDW and the current period distribution economic benchmarking RIN template.
	<b>Methodology and assumptions made</b> <ul style="list-style-type: none"><li>Queries were run from Inservice to extract a base data set of outages, outage assets, customers and distribution transformers for the current reporting period.</li><li>All reliability performance indices (SAIDI, SAIFI, and MAIFI) have been calculated using disconnected customers and customer durations as per the AER requirements..</li></ul>
	<b><i>Feeder ID / Name, Description of the feeder service area, Length of high voltage distribution lines, Feeder kVA</i></b> <ul style="list-style-type: none"><li>Feeder attributes were extracted from SDW</li><li>Connected customers by feeder was calculated as an average of connected customers at the beginning of the financial year and the end of the financial year.</li></ul>
	<b><i>Feeder classification</i></b> <ul style="list-style-type: none"><li>Feeder classifications were determined by applying the AER’s feeder categorisation rules:<ul style="list-style-type: none"><li>Feeders were classified as ‘urban’ if the maximum demand of the feeder divided by the total length of the feeder was greater than 0.3 MVA/km;</li><li>Feeders were classified as ‘Short Rural’ if the maximum demand of the feeder divided by the total length of the feeder was less than or equal to 0.3 MVA/km and the total length of the feeder was less than or equal to 200km; and</li><li>Feeders were classified as ‘Long Rural’ if the maximum demand of the feeder divided by the total length of the feeder was less than or equal to 0.3 MVA/km and the total length of the feeder greater than 200 km.</li></ul></li><li>Where there was no maximum demand available for a feeder, the classification was manually assessed based on their location and the classification of other feeders from that substation.</li></ul>
	<b><i>Number of distribution customers</i></b> A copy of the breakdown of customer numbers by feeder section was obtained from the source data of TasNetworks’ Economic Benchmarking RIN response for the current reporting period.
	<b><i>Maximum demand (MVA), Energy not supplied</i></b> Feeder maximum demands, unplanned energy not supplied, and planned energy not supplied, were sourced from the same source of information used to report current Economic Benchmarking RIN, <i>Table 3.6.2 Energy Not Supplied</i> . Feeder classification was undertaken as per the AER’s feeder classification definition in Appendix G of the Annual Reporting RIN instructions and definitions.
	<b><i>All unplanned and planned outage information</i></b> Outages were sourced from Inservice.
	<b><i>All momentary feeder outage information</i></b> No momentary feeder outage information was sourced for this template.
	<b>Use of estimates</b> Unless specified below, no estimates have been used in the collation and presentation of this information.
<b>Table 3.6.9: Network feeder reliability – planned outages</b>	<b>Consistency of information with the requirements of the RIN</b> The information provided about planned outages is consistent with the requirements of the Annual Reporting RIN, in that: <ul style="list-style-type: none"><li>The information provided includes single premise interruptions; and</li><li>Customer numbers used to derive SAIDI and SAIFI is defined as the average of the number of customers at the beginning of the reporting period and the number of customers at the end of the reporting period.</li></ul>
	<b>Source of information</b> The reliability indices relating to planned outages reported by TasNetworks draw on data obtained from Inservice.
	<b>Methodology and assumptions made</b> <ul style="list-style-type: none"><li>Reliability performance indices (SAIDI, SAIFI) have been calculated using disconnected customers and customer duration</li><li>Outage base data for the regulatory year was extracted from Inservice including, for each outage, outage assets, customers and distribution transformers, and filtered to remove outages which did not occur on mainland Tasmania (e.g. excluding Bass Strait Islands and UMS).</li><li>This data was then cleansed to ensure completeness of reliability areas, communities, feeders and customers disconnected. All other outages were manually inspected to identify issues and any missing information. Where a transformer bordered on two reliability areas, the reliability area of highest value was chosen (e.g. urban over high</li></ul>

	<p>density rural).</p> <ul style="list-style-type: none"><li>• Outages used to calculate the MED threshold for the current reporting period using the 2.5 Beta methodology are taken from the previous five financial years. The daily system SAIDI (with STPIS exclusions applied) for the current reporting period, was calculated and daily SAIDI was compared to the calculated MED threshold to determine MEDs.</li><li>• Those MEDs were then applied to exclude individual outages during the current regulatory year.</li><li>• Base outage data was used to determine reliability area and system planned SAIDI and SAIFI for the previous regulatory year.</li></ul>
	<p><b>Use of estimates</b></p> <p>Unless specified below, no estimates have been used in the collation and presentation of this information.</p>



Template 4.1

Public lighting

Table 4.1.4: Public lighting metrics by tariff	<b>Consistency of information with the requirements of the RIN</b> Information has been presented for public lighting in accordance with the definitions and requirements of the RIN in that: <ul style="list-style-type: none"><li>Public and contract lighting volumes have been allocated to the published tariff categories;</li><li>Public and contract lighting revenues received have been allocated to the published tariff categories.</li></ul>
	<b>Source of information</b> The revenue and volume data in this table is sourced from TasNetworks’ market and billing systems dBill and Gentrack.
	<b>Methodology and assumptions made</b> Public lighting volumes have been extracted from Gentrack by tariff type on a monthly basis and averaged to provide and a average volume for the year. Public lighting revenue has been extracted from dBill by tariff type.
	<b>Use of estimates</b> No estimates have been used in the collation and presentation of this information.



Template 6.2

Reliability and customer service performance

<b>Table 6.2.1:</b> <b>Unplanned minutes off supply (SAIDI)</b>	<b>Consistency of information with the requirements of the RIN</b>  The information provided about system reliability in Tables 1 and 2 is consistent with the requirements of the Annual Reporting RIN, in that: <ul style="list-style-type: none"><li>• TasNetworks’ reliability statistics have been calculated in accordance with the methodology approved by the AER;</li><li>• The information provided does not include subsequent outages caused by network switching during fault finding; and</li><li>• Customer numbers used to derive SAIDI and SAIFI is defined as the average of the number of customers at the beginning of the reporting period and the number of customers at the end of the reporting period.</li></ul>
	<b>Source of information</b> <ul style="list-style-type: none"><li>• The SAIDI and SAIFI statistics reported are based on data sourced from Inservice;</li><li>• Customer numbers are drawn from a number of sources: SDW, DBill and GenTrack.</li></ul>
	<b>Methodology and assumptions made</b>  <b>General</b> All reliability performance indices (SAIDI, SAIFI, MAIFI) have been calculated using disconnected customers and customer duration.  <b>SAIDI &amp; SAIFI</b> <ul style="list-style-type: none"><li>• Queries were run on Inservice to extract a base data set of outages, outage assets, customers and distribution transformers for the current reporting period;</li><li>• The outage data was then filtered to exclude any outages for the current reporting period which were not on mainland Tasmania (e.g. outages on Bass Strait Islands and UMS);</li><li>• This data was then cleansed to ensure completeness of reliability areas, communities, feeders and customers disconnected.. All other outages were manually inspected to identify issues and additional/missing information sourced from the asset history data warehouse. Where a transformer bordered on two reliability areas, the reliability area of highest value was chosen e.g. urban over high density rural;</li><li>• SAIDI and SAIFI impacts on the reliability area and the system were then calculated;</li><li>• Outages used to calculate the MED threshold for the current reporting period using the 2.5 Beta methodology are taken from the previous five financial years. The daily system SAIDI (with STPIS exclusions applied) for the current reporting period, was calculated and daily SAIDI was compared to the calculated MED threshold to determine which days were MEDs for exclusion;</li><li>• All events that occurred on MEDs, planned outages and events that meet the STPIS exclusion criteria were excluded from the calculation of SAIDI and SAIFI; and</li><li>• An extract of base outage data was used to determine reliability area and system SAIDI and SAIFI for the current reporting period.</li></ul>
	<b>Customer numbers</b> <ul style="list-style-type: none"><li>• A count of NMIs at the beginning and end of financial year was undertaken by reliability area.</li><li>• Those queries excluded NMIs on the Bass Strait Islands, UMS and NMIs with a status of ‘Extinct’.</li><li>• A small volume of NMIs with unknown reliability areas were redistributed proportionally across the rest of the population of NMIs.</li></ul>
	<b>Use of estimates</b>  Unless specified below, no estimates have been used in the collation and presentation of this information.

## Template 6.6 STPIS customer service

<p>Table 1: STPIS Customer Service Performance</p>	<p><b>Consistency of information with the requirements of the RIN</b></p> <p>The information provided about telephone answering in Table 1 is consistent with the requirements of the Annual Reporting RIN, in that:</p> <ul style="list-style-type: none"> <li>the number of calls received reflects the number of calls to TasNetworks’ fault line (132004); and</li> <li>the number of calls answered within 30 seconds has been taken from the time that a call enters the telephone system of TasNetworks’ call centre and the caller speaks with an operator, excluding the time that callers are connected to an automated interactive service that provides substantive information.</li> </ul>
	<p><b>Source of information</b></p> <p>The STPIS customer service information provided was sourced from the call management system used by TasNetworks’ fault centre.</p>
	<p><b>Methodology and assumptions made</b></p> <ul style="list-style-type: none"> <li>Call performance data for the current reporting period includes the date, total calls received, total calls answered, total calls abandoned and the percentage of calls answered within 30 seconds;</li> <li>The number of calls answered in 30 seconds was calculated by applying the percentage of calls answered within 30 seconds to the number of total calls answered on the day; and</li> <li>Major event days and other allowable exclusions as per the AER’s STPIS guideline have been applied to these figures.</li> <li>Percentage of calls abandoned is the result of dividing the total number of calls abandoned by the total number of calls received. Note that the methodology for calculating the percentage of calls abandoned for years prior to 2017/18 has changed. In prior years the percentage of calls abandoned was calculated using calls abandoned only in the first 30 seconds.</li> </ul>
	<p><b>Use of estimates</b></p> <p>No estimates have been used in the collation and presentation of this information.</p>
	<p></p>

### Template 6.7 STPIS daily performance

<p>Table 1: Key Performance Indicators (KPIs) for Customer Service</p>	<p><b>Consistency of information with the requirements of the RIN</b></p> <p>The daily performance data provided is consistent with the requirements of the Annual Reporting RIN, in that:</p> <ul style="list-style-type: none"> <li>the number of calls received is the number of calls to TasNetworks' fault line (132004);</li> <li>the number of calls answered within 30 seconds is the time taken to answer a call, measured from when a call enters the telephone system of the call centre to the moment that the caller speaks with an operator, but excluding the time that the caller is connected to an automated interactive service that provides substantive information;</li> </ul>			
	<p><b>Source of information</b></p> <p>The STPIS daily performance data has been sourced from the call management system used by TasNetworks' fault centre.</p>			
	<p><b>Methodology and assumptions made</b></p>			
	<p><b>Customer Service</b></p> <p>Call performance data is extracted on a monthly basis, and includes the date and time of every call received, answered, abandoned and service level.</p>			
	<p><b>Use of estimates</b></p> <p>No estimates have been used in the collation and presentation of this information.</p>			

Template 6.8

STPIS exclusions

Table 6.8.1: STPIS exclusions	<b>Consistency of information with the requirements of the RIN</b> The STPIS exclusion outage data provided in Table 6.8 is consistent with the requirements of the Annual Reporting RIN.
	<b>Source of information</b> The exclusion event information reported are based on data sourced from Inservice.
	<b>Methodology and assumptions made</b> <ul style="list-style-type: none"><li>• Queries were run on Inservice to extract a base data set of outages, outage assets, customers and distribution transformers for the current reporting period;</li><li>• The outage data was then filtered to exclude any outages for the current reporting period which were not on mainland Tasmania (e.g. outages on Bass Strait Islands and UMS);</li><li>• All events that meet the STPIS exclusion criteria in the STPIS guidelines 3.3(a) were selected</li></ul>
	<b>Use of estimates</b> No estimates have been used in the collation and presentation of this information.

Template 6.9

STPIS Guaranteed Service Level (GSL)

<b>Table 6.9.1:</b> <b>Guaranteed service levels – Jurisdictional GSL scheme</b>	<b>Consistency of information with the requirements of the RIN</b>  The GSL jurisdictional data provided 1 is consistent with the requirements of the Annual Reporting RIN, in that: <ul style="list-style-type: none"><li>• The information provided is the sum of all payments made to customers under the jurisdictional GSL scheme that applies to TasNetworks and the payments made to customers under our customer charter; and</li><li>• The information provided is consistent with GSL information provided in the category analysis and economic benchmarking RINs.</li></ul>
	<b>Source of information</b> <ul style="list-style-type: none"><li>• The number and value of GSL payments made to customers in the current reporting period have been derived from records in the GSL Tool.</li><li>• The number and value of all other payments made to customers in the current reporting period have been derived from records kept in the Charter Payment Tool, which is part of TasNetworks’ customer complaint management systems.</li></ul>
	<b>Methodology and assumptions made</b> <ul style="list-style-type: none"><li>• TasNetworks obligation under a jurisdictional scheme to make payments to customers is limited to metrics relating to reliability of supply only. The amounts reported for all other categories are voluntary payments made by TasNetworks in recognition of a breach of our customer charter. There are no entries under ‘Appointments’ due to TasNetworks Customer Charter.</li></ul>
	<b>Use of estimates</b>  No estimates have been used in the collation and presentation of this information.
<b>Table 6.9.2:</b> <b>Guaranteed service levels – AER GSL scheme</b>	<b>Consistency of information with the requirements of the RIN</b>  TasNetworks has no performance or reporting obligations under STPIS in relation to Guaranteed Service Levels.
	<b>Source of information</b>
	<b>Methodology and assumptions made</b>
	<b>Use of estimates</b>

Template 7.8

Avoided TUOS payments

Template 7.8 : Avoided TUOS payments	<b>Consistency of information with the requirements of the RIN</b> The information provided in Template 7 regarding Avoided Cost Payments is consistent with the requirements of the Annual Reporting RIN, in that: Avoided cost payments have been calculated as required under clause 5.5(h) of the NER.
	<b>Source of information</b> The expenditure data reported has been sourced from TasNetworks’ financial systems.
	<b>Methodology and assumptions made</b> Avoided cost payments have been calculated in accordance with TasNetworks’ Avoided TUoS for Embedded Generators procedure using actual meter data.
	<b>Use of estimates</b> No estimates have been used in the collation and presentation of this information.

# Template 7.10     Jurisdictional schemes

TasNetworks currently has no jurisdictional schemes and therefore has not made any payments. This has been noted in the template and no values have been reported.

	Consistency of information with the requirements of the RIN
	Source of information
	Methodology and assumptions made
	Use of estimates

## Template 7.11 Demand Management Incentive Scheme

<b>Table 7.11:</b> <b>DMIA</b> <b>expenditure in</b> <b>the regulatory</b> <b>reporting year</b>	<b>Consistency of information with the requirements of the RIN</b>  The information provided about the Demand Management Incentive Scheme (DMIA) projects submitted for approval is consistent with the requirements of the Annual Reporting RIN, in that: <ul style="list-style-type: none"><li>only those projects classified as Demand Management have been discussed within this report.</li></ul>
	<b>Source of information</b>  The data used to complete the DMIS template were sourced from TasNetworks’ financial systems.
	<b>Methodology and assumptions made</b>  Raw data was sourced from TasNetworks’ financial systems for the relevant period. All projects with the demand management identifier (functional area DMIAL (Demand management incentive allowance) were extracted from the financial ledger.
	<b>Use of estimates</b>  No estimates have been used in the collation and presentation of this information.

Template 7.13    TARC

	<p><b>Consistency of information with the requirements of the RIN</b></p> <p>The information provided regarding Total Annual Retailer Charges (TARC) is consistent with the requirements of the Annual Reporting RIN, in that:</p> <ul style="list-style-type: none"><li>only those network charges billed by the distributor to all retailers have been utilised within this report</li></ul>
	<p><b>Source of information</b></p> <p>Revenue charges as reported have been sourced from TasNetworks’ financial systems and DBill.</p>
	<p><b>Methodology and assumptions made</b></p> <ul style="list-style-type: none"><li>The TARC represents all network charges billed by the distributor to all retailers for the period. TARC charges include the following items:<ul style="list-style-type: none"><li>Distribution charges;</li><li>Transmission charges;</li><li>Metering charges;</li><li>Fee Based Services; and</li><li>Unmetered supply charges.</li></ul></li><li>The revenue associated with the items listed above is as per the Annual RIN reporting table 1 (Income).</li></ul>
	<p><b>Use of estimates</b></p> <p>No estimates have been used in the collation and presentation of this information.</p>



Template 8.1

Income

	<p><b>Consistency of information with the requirements of the RIN</b></p> <p>The information provided with regards to income is consistent with the requirements of the Annual Reporting RIN, in that:</p> <ul style="list-style-type: none"><li>all revenue data reconciles to TasNetworks’ audited statutory accounts for the current reporting period</li></ul>
	<p><b>Source of information</b></p> <p>The following data sources have been used to provide income information;</p> <ul style="list-style-type: none"><li>TasNetworks’ financial systems; and</li><li>Detailed revenue splits for fee based services sourced from SOM and DBill.</li></ul>
	<p><b>Methodology and assumptions made</b></p> <p><b><i>Standard control Services (SCS) Distribution Revenue</i></b></p> <p>This represents billing revenue associated with standard control services distribution use of system (DUoS) charges for all customers. Billing revenue was originally sourced from DBill and subsequently entered into TasNetworks’ financial systems with the relevant dimensional identifiers.</p> <p><b><i>Alternative Control Services (ACS) Public Lighting</i></b></p> <p>This represents revenue associated with the asset component of the approved tariff prices for public lighting. Data has been sourced from TasNetworks’ financial systems.</p> <p><b><i>ACS Metering</i></b></p> <p>This represents revenue associated with the metering component of the approved distribution network tariffs. Data has been sourced from TasNetworks’ financial systems.</p> <p><b><i>ACS Fee based services</i></b></p> <p>This represents revenue associated with items classified as fee based services as per the current Distribution Determination. Data has been sourced from TasNetworks’ financial systems. Adjustments were required for fee based services to exclude charges which were incorrectly allocated as fee based services and have been reallocated to customer capital contributions.</p> <p><b><i>ACS Quoted Services, Negotiated Services Other Revenue</i></b></p> <p>Data has been sourced from TasNetworks’ financial systems.</p> <p><b><i>Unregulated Services Distribution Revenue</i></b></p> <p>This represents revenue associated with the PAYG metering charge. Data has been sourced from TasNetworks’ financial systems.</p> <p><b><i>Capital Contributions SCS</i></b></p> <p>Capital contributions have been allocated in TasNetworks’ financial system in accordance with the approved method in the current Distribution Determination. Adjustments to the final capital contributions were made in accordance with the reallocation of revenue from ACS Fee Based Services and ACS Quoted Services detailed above.</p> <p><b><i>ACS Public Lighting Capital Contributions</i></b></p> <p>This represents capital contributions relating to public lighting.</p> <p><b><i>Unregulated Services Profit from the sale of fixed assets</i></b></p> <p>This represents the distribution portion of the sale of fixed assets as per the audited statutory accounts for the current reporting period.</p> <p><b><i>SCS TUOS Revenue</i></b></p> <p>This represents the billing revenue associated with standard control services TUoS for all customers. Billing revenue was originally sourced from DBill and subsequently entered into TasNetworks’ financial systems with the relevant dimensional identifiers.</p> <p><b><i>Unregulated Services Other Revenue</i></b></p> <p>This represents any revenue item that is not classified as regulated in the current Distribution Determination, this includes Transmission related revenue.</p> <p><b><i>TUOS Expenditure</i></b></p> <p>Represents the cost of goods sold in relation to transmission charges. Data is sourced from TasNetworks’ financial systems.</p> <p><b><i>Costs Not Allocated to Distribution Business</i></b></p> <p>This represents costs associated with the Transmission sector of TasNetworks.</p> <p><b><i>Maintenance Costs</i></b></p> <p>These costs are as per template 8.4 in this RIN.</p> <p><b><i>Operating Expenses</i></b></p> <p>These costs are as per template 8.4 in this RIN..</p> <p><b><i>Depreciation</i></b></p> <p>Depreciation has been split across the relevant service classifications as per the Regulated Asset Base (RAB) Roll Forward Model for the current reporting period.</p>

	<p><b>Depreciation not allocated to DB</b></p> <p>These costs represent the depreciation allocated to the Transmission sector of TasNetworks and is as per the Transmission regulated accounts for the current reporting period.</p>
	<p><b>Finance Charges</b></p> <p>These costs are as per TasNetworks’ audited statutory accounts for the current reporting period.</p>
	<p><b>Feed in Tariff Scheme</b></p> <ul style="list-style-type: none"><li>• The Feed In Tariff (FiT) Scheme is a State Government initiative whereby TasNetworks provides energy retailers with the variance between a legacy solar tariff rate and an OTTER determined ‘fair and reasonable’ tariff rate.</li><li>• In accordance with Government policy, this expense has been allocated to unregulated distribution services.</li></ul>
	<p><b>Use of estimates</b></p> <p>No estimates have been used in the collation and presentation of this information.</p>

Template 8.2

Capex

Table 8.2.1: Capex by purpose – SCS	<div><div>Consistency of information with the requirements of the RIN</div><div>The information provided about capex in Tables 1 - 6 is consistent with the requirements of the Annual Reporting RIN, in that:<ul style="list-style-type: none"><li>expenditure has been reported across service classifications in line with the AER approved CAM; and</li><li>expenditure has been reconciled back to TasNetworks’ audited statutory accounts.</li><li>TasNetworks does not have any related parties with which it has dealings and, therefore, did not pay any margins or management fees during the current reporting year.</li></ul></div><div><div>Source of information</div><div>The capital expenditure information reported has been sourced from TasNetworks’ financial systems.</div></div><div><div>Methodology and assumptions made</div><div><div>General</div><div>There are a number of adjustments which have been made to TasNetworks’ audited statutory accounts data to produce a regulatory view. These are as follows:<ul style="list-style-type: none"><li>a ‘true up’ of any under/over recovery of corporate and shared services expenditure has been allocated back against work category codes based on direct labour hours, in line with the AER approved CAM; and</li><li>an allocation of the cash movement in provisions during the year has been allocated against work category codes based on direct labour hours, in line with the AER approved CAM. This treatment is consistent with the methodology used to determine the allowance in the current regulatory control period determination.</li></ul></div><div><div>Capex by purpose – SCS, Capex other</div><ul style="list-style-type: none"><li>Expenditure is captured in TasNetworks’ financial systems at a detailed work category level (which is used to define the services being carried out). This data has then been mapped to the AER RIN service classifications according to the work category; and</li><li>Expenditure incurred in relation to corporate and shared assets has been allocated across the service classifications in line with the AER approved CAM.</li></ul></div><div><div>Capex by purpose – Material difference explanation</div><div>The commentary provided has been sourced through analysis of expenditure against forecasted spend.</div></div><div><div>Capex by asset class</div><div>Expenditure is captured in TasNetworks’ financial system at a detailed work category level and allocated to each of the asset classes depending on the work category. A mapping template has been used to allocate costs to each asset class which is consistent with the methodology used for the current Distribution Determination.</div></div><div><div>Capital contributions by asset class</div><div>Contributions are captured in the financial system at a detailed work category level. The contributions by work category have then been allocated to the relevant asset class using a TasNetworks mapping template. This methodology is consistent with that used for the current Distribution Determination. Where a customer contribution has not been assigned to a specific work category it has been applied on a pro-rata basis across all work category codes.</div></div><div><div>Disposals by asset class</div><div>Disposals reflect the proceeds from the sale of assets and have been sourced from the fixed asset register in TasNetworks’ financial systems.</div></div><div><div>Use of estimates</div><div>No estimates have been used in the collation and presentation of this information.</div></div></div></div></div>
Table 8.2.2: Capex by purpose – Material difference explanation	
Table 8.2.3: Capex other	
Table 8.2.4: Capex by asset class	
Table 8.2.5: Capital contributions by asset class	
Table 8.2.6: Disposals by asset class	

Template 8.4

Opex

<div>Table 8.4.</div> <div>8.4.1: Operating &amp; Maintenance Expenditure by Purpose</div>	<div>Consistency of information with the requirements of the RIN</div> <div>The information provided about opex in Tables 8.4 is consistent with the requirements of the Annual Reporting RIN, in that:<ul style="list-style-type: none"><li>expenditure has been reported across service classifications in line with the AER approved CAM; and</li><li>expenditure has been reconciled back to TasNetworks’ audited statutory accounts.</li></ul></div>
	<div>Source of information</div> <div>The expenditure information reported has been sourced from TasNetworks’ financial systems (SAP).</div>
	<div>Methodology and assumptions made</div> <div><p>The financial data has been extracted at a business (Distribution or Transmission) level and then at a functional area level to allow the information to be allocated in accordance with the RIN requirements.</p><p>The opex work categories are allocated RIN sub categories and service classifications (standard control, alternative control, negotiated and unregulated services) so that the information can be aligned with the RIN template tables.</p><p>Corporate and Shared Services costs have been allocated across the service classifications in line with the AER approved CAM. Costs that were directly attributed to service classifications have been allocated on that basis. All other Corporate and Shared costs have been allocated in line with the AER approved CAM.</p><p>Once the information has been reported in alignment with the RIN reporting requirement the results are then reconciled to TasNetworks’ audited statutory accounts. Any adjustments are shown in the RIN reporting template and are only minor in nature.</p></div>
	<div>Use of estimates</div> <div>No estimates have been used in the collation and presentation of this information.</div>

## **Section 2:**

All additional information requested by the AER in Schedule 1 of the RIN notice:

- Paragraphs 1.1 (c,e,f,g); and
- Paragraphs 1.2 – 1.8.

## 1.1(c) Adjustments to statutory accounts

In addition to the completed Financial Information Templates attached at Appendix B to the RIN, TasNetworks is required to provide the AER with information that reconciles and explains adjustments between the Statutory Accounts and the Financial Information Templates, separately listing each adjustment made to derive the information submitted in the financial templates.

TasNetworks has provided the required explanatory material and in doing so specified the amount of each adjustment and described the nature and basis of the adjustment. The adjustments made to TasNetworks' audited statutory accounts in preparing the information presented in the Financial Information Templates are reproduced in the following table.

Journal Number/ Template Number	Account Debited  Account Credited	Income Statement		Balance Sheet	
		Debit	Credit	Debit	Credit
1	Income Statement (reallocate from Distribution Revenue) Avoided TUOS Expenditure (gross up exp & revenue for cost offset vs customer invoice) Current Assets (Accrued Income)	42,937	6,400,152	6,377,643	
1					
1					
1					
1	Income Statement (Distribution Revenue) <i>Adjustment to exclude Unbilled Use of System accrual, gross up revenue for cost offset vs customer invoice and other reallocations from Standard Control .</i>				
2	Income Statement (Profit from the Sale of fixed assets)	756,209			
2	Income Statement (Transmission and unregulated)		756,209		
3	Income Statement (Interest Income)	42,737			
3	Income Statement (not allocated to DB)		42,737		
4	Income Statement (Customer Contributions)	1,867,160			
4	Income Statement (reallocate from Distribution Revenue)	20,427			
4	Income allocated to unregulated (including Transmission related income)		1,867,160		
4	Income Statement (reallocate to Customer Contributions)		20,427		
5	Other Revenue allocated to unregulated & Transmission	215,151,796			
5	Other Revenue allocated to unregulated & Transmission		215,151,796		
6	Finance Charges not allocated to DB	83,550,065			

Journal Number/ Template Number	Account Debited  Account Credited	Income Statement		Balance Sheet	
		Debit	Credit	Debit	Credit
6	Finance Charges not allocated to DB		83,550,065		
7	Depreciation not allocated to DB	70,560,739			
7	Depreciation not allocated to DB		70,560,739		
8	Other expenses allocated to Transmission / Unregulated	59,929,793			
8	Other expenses allocated to Transmission / Unregulated		59,929,793		

## 1.1(e) Regulatory accounting principles and policies

In providing the financial information specified in Schedule 1 of the AER's Regulatory Information Notice, TasNetworks is required to adhere to the principles and requirements set out by the AER in Appendix A of the RIN. The following table records TasNetworks' compliance with the requirements of Appendix A.

Principle	Statement of compliance	Supporting information
<b>1. General</b>		
1.1 (a)	TasNetworks' financial information presented in the RIN templates has been derived from its audited statutory accounts.	<ul style="list-style-type: none"> <li>Independent audit opinion</li> </ul>
(b)	The financial information provided by TasNetworks' can be verified with reference to its audited statutory accounts.	<ul style="list-style-type: none"> <li>Independent audit opinion</li> </ul>
(c)	TasNetworks' Regulatory Accounting Statements reflect the economic substance of transactions rather than their legal form.	<ul style="list-style-type: none"> <li>Independent audit opinion</li> </ul>
(d)	TasNetworks' financial information includes only costs that have been incurred in or relate to the provision of standard control services, alternative control services, negotiated distribution services and unregulated distribution services.	<ul style="list-style-type: none"> <li>TasNetworks' regulatory accounts include only costs that have been incurred in or relate to the provision of distribution services and have been allocated to the distribution business and to services in accordance with TasNetworks' CAM</li> </ul>
(e)	TasNetworks' financial information has been presented on a fair and consistent basis and reflects only those costs, revenues, assets and liabilities that may be reasonably attributed to TasNetworks.	<ul style="list-style-type: none"> <li>Costs, revenue, assets and liabilities have been reported in accordance with TasNetworks' chart of accounts and agree with TasNetworks' audited statutory accounts</li> <li>Independent audit opinion</li> </ul>
(f)	In so far as is reasonably practicable, TasNetworks' financial information has been prepared in accordance with the general rules and format, and use the accounting principles and policies applicable to TasNetworks' audited statutory accounts, except as otherwise required by the Regulatory Information Notice.	<ul style="list-style-type: none"> <li>Independent audit opinion</li> </ul>
(g)	TasNetworks' financial information has been presented in an understandable manner, without compromising relevance or reliability.	<ul style="list-style-type: none"> <li>Independent audit opinion</li> </ul>
(h)	TasNetworks' Regulatory Accounting Statements and financial information state fairly the financial position of TasNetworks, as at the conclusion of the current reporting period.	<ul style="list-style-type: none"> <li>Independent audit opinion</li> </ul>
<b>2. Cost allocation to the regulated distribution business</b>		
2.1	All costs in TasNetworks' audited statutory accounts that relate to or have been incurred in the provision of distribution services have been allocated to TasNetworks in accordance with paragraph 2.3 of Appendix A – Principles and Requirements.	<ul style="list-style-type: none"> <li>All costs that relate to or have been incurred in the provision of distribution services have been allocated to TasNetworks in accordance with paragraph 2.3 of Appendix A</li> <li>Audit opinion and audited statutory accounts</li> </ul>
2.2	All costs in TasNetworks' audited statutory accounts that relate to or have been incurred in the provision of distribution services and allocated to TasNetworks as per principle 2.1 have been allocated to a standard control service, alternative control service, negotiated distribution service or unregulated distribution service.	<ul style="list-style-type: none"> <li>All costs relating to or incurred in the provision of distribution services have been allocated to categories of distribution services in accordance with TasNetworks' approved CAM</li> <li>Independent audit opinion</li> </ul>



Principle	Statement of compliance	Supporting information
2.3 (a)	All costs allocated to TasNetworks under requirement 2.1 that are directly attributable to TasNetworks have been allocated to TasNetworks.	<ul style="list-style-type: none"> <li>All costs relating to or incurred in the provision of distribution services that are directly attributable to TasNetworks' Distribution Business have been allocated in accordance with TasNetworks' approved CAM</li> </ul>
(b)	All costs allocated to TasNetworks under requirement 2.1 that are not directly attributable to TasNetworks have been allocated to TasNetworks on a causation basis using an appropriate allocator (determined in accordance with Schedule 1 of the RIN), unless the item is not material.	<ul style="list-style-type: none"> <li>All costs relating to or incurred in the provision of distribution services that are not directly attributable to the distribution business have been allocated in accordance with TasNetworks' approved CAM</li> </ul>
(c)	All costs allocated to TasNetworks under requirement 2.1 that are directly attributable to TasNetworks but not directly attributable to a <i>standard control service, alternative control service, negotiated distribution service or unregulated distribution service</i> have been allocated across distribution services in accordance with TasNetworks' approved Cost Allocation Method.	<ul style="list-style-type: none"> <li>All costs allocated to TasNetworks' Distribution Business that are directly attributable to the Distribution Business but not directly attributable to a distribution service have been allocated to asset categories in accordance with TasNetworks' approved CAM</li> </ul>
(d)	All fixed asset costs have been allocated to an Asset Category on either a directly attributable basis or a causal basis using appropriate allocators.	<ul style="list-style-type: none"> <li>Distribution fixed assets costs have been allocated to TasNetworks' Distribution Business either directly or on a causation basis in accordance with TasNetworks' approved CAM</li> </ul>
(e)	All operating and maintenance costs have been allocated to an Activity Area/cost category on either a directly attributable basis, or a causation basis using an appropriate allocator.	<ul style="list-style-type: none"> <li>Operating or maintenance costs allocated to a cost category on either a directly attributable or causation basis have been allocated in accordance with allocators set out in TasNetworks' CAM</li> </ul>
<b>3. Capital contributions</b>		
3.1	Customer capital contributions have been treated by TasNetworks in accordance with the method approved in the AER's current Distribution Determination.	<ul style="list-style-type: none"> <li>Capital contributions have been recognised in line with TasNetworks' Customer Capital Contributions policy</li> </ul>
<b>4. Regulatory Asset Base</b>		
4.1	No asset revaluations or adjustments for impairment have been made that have not been agreed to or required by the AER.	<ul style="list-style-type: none"> <li>Any asset revaluations and adjustments for impairment made to TasNetworks' audited statutory accounts have been reflected in TasNetworks' regulatory accounts</li> </ul>
4.2	No asset revaluations or adjustments for impairment made in TasNetworks' audited statutory accounts have been reflected in TasNetworks' Financial Information templates.	<ul style="list-style-type: none"> <li>In the case of grid assets, TasNetworks' accounting policy aligns statutory asset values to align with regulatory asset values</li> <li>Therefore, asset revaluations and adjustments for impairment made to TasNetworks' audited statutory accounts (see metering impairment referenced in relation to Principle 5.2) have been reflected in TasNetworks' regulatory accounts</li> </ul>
4.3	Capital works expenditure has been allocated to the relevant asset categories and has not been shown as work-in-progress, and all expenditure on capital works has been allocated to an asset category.	<ul style="list-style-type: none"> <li>Capital work in progress has been included as part of capital expenditure based on an "as incurred" methodology</li> <li>Capital additions have been allocated to asset categories and the proportion of those additions aligned with TasNetworks' audited financial statements</li> <li>Independent audit opinion</li> </ul>
4.4	Goodwill and any related impairments have not been included in the Financial Information templates.	<ul style="list-style-type: none"> <li>Goodwill and impairment of assets have not been allocated to TasNetworks' Distribution Business</li> </ul>

Principle	Statement of compliance	Supporting information
<b>5.</b>	<b>Avoided cost payments</b>	
5.1	All avoided cost payments made by TasNetworks to embedded generators relating to the deferral of augmentation of TasNetworks' distribution network and the transmission network in Tasmania have been disclosed.	
<b>6.</b>	<b>Regulatory accounting principles and policies</b>	
6.1	TasNetworks' regulatory accounting principles and policies are based on a recognisable and rational economic basis, and conform to the measurement principles of the Australian Accounting Standards.	<ul style="list-style-type: none"> <li>Overheads have been allocated to services based on Tas approved CAM</li> </ul>
<b>7.</b>	<b>Basis of preparation</b>	
	For all information in the financial information templates, as well as the non-financial information templates, TasNetworks has explained in a separate document the basis on which the information was prepared, and this explanatory material has been made available for the purposes of audit and review.	
<b>8.</b>	<b>Forecasts from the current Distribution Determination</b>	
8.1	Forecasts from the current Distribution Determination have been adjusted to the same dollar terms as the actual data reported in the financial information templates.	<ul style="list-style-type: none"> <li>Independent audit opinion</li> </ul>
8.2	Capital, maintenance and operating expenditure forecasts have been reported in nominal dollars from the current Distribution Determination.	<ul style="list-style-type: none"> <li>Independent audit opinion</li> </ul>
8.3	Financial forecasts have been deflated by removing the impact of the inflation forecast by the AER in the current Distribution Determination and reinflated on the basis of actual inflation outcomes.	<ul style="list-style-type: none"> <li>Independent audit opinion</li> </ul>

## 1.1(f) Capitalisation policy

TasNetworks capitalisation policy for the current reporting period is provided in Appendix A to this Basis of Preparation document.

There were no changes in the capitalisation policy from the previous regulatory year.

## 1.1(g) Overhead allocation under Cost Allocation Method

TasNetworks is required to provide a statement of the policy applied in the current reporting period for determining the allocation of overheads to service segments in accordance with the CAM approved by the AER.

Overheads have been allocated to service segments in accordance with the approved CAM. The CAM encompasses both the method and policy for the allocation of costs.

## **1.2 Material changes in regulatory accounting principles and policies**

There were no material changes in regulatory accounting principles and policies made in the current reporting period.

## **1.3 Material changes in allocation of overheads**

No material changes in the allocation of overheads were made in the current reporting period.

## **1.4 Previously provided policies**

Information requested in Schedule 1, paragraph 1.1 (e), (f) and (g) has been previously provided.

## 1.5 Differences between actuals and forecasts (inc. 1.6 Explanation of differences)

For each of the items listed in the following table, TasNetworks is required to identify any differences of greater than or equal to  $\pm 10$  per cent between the amounts reported in the Financial Information Templates and the corresponding amounts provided for by the AER in the current Distribution Determination, and provide details of the operational activities and/or drivers that caused each material difference.

Item	Forecast \$'000 nominal	Actual \$'000 nominal	Variance	Explanatory information
<b>1.5(a) Total operating expenditure<sup>(1)</sup></b>	68,272	86,416	26.58%	<ul style="list-style-type: none"> <li>Operating expenditure variances from forecasts are detailed in <i>Template 8.4. Opex</i> Table 8.4.1. Material differences between forecast and actual expenditure are explained in Table 8.4.3.</li> </ul>
<b>1.5(b) Total capital expenditure<sup>(2)</sup></b>	126,158	162,325	28.67%	<ul style="list-style-type: none"> <li>Capital expenditure variances are detailed in Table 8.2.1 of <i>Template 8.2 Capex</i>, with material differences between forecast and actual expenditure explained in Table 8.2.2 (Material difference explanation).</li> </ul>

### Notes to table

1,2 Applies to Standard control services only. .

## 1.7 Differences between STPIS targets and actual performance (inc. 1.8 Explanation of differences)

Following is an explanation of any material differences between the target performance measures specified by the AER under the Service Target Performance Incentive Scheme (STPIS)<sup>1</sup> and TasNetworks' actual performance in 2017-18.

The supply reliability categories used in the following tables are as defined in the Tasmanian Electricity Code and the performance targets are as per the Australian Energy Regulator's final determination of the SAIDI and SAIFI targets for Aurora's STPIS<sup>2</sup>.

Supply reliability category	Reliability Index	Target	Actual	Variance	Explanation
Critical infrastructure	SAIFI	0.28	0.06	0.22	<ul style="list-style-type: none"> <li>The Critical Infrastructure supply reliability category recorded a lower SAIDI and SAIFI than their respective target values.</li> </ul>
	SAIDI	27.83	3.58	24.25	
High density commercial	SAIFI	0.30	0.27	0.03	<ul style="list-style-type: none"> <li>The High Density Commercial supply reliability category recorded a lower SAIDI and SAIFI than their respective target values.</li> </ul>
	SAIDI	25.32	21.89	3.43	
Urban	SAIFI	1.03	1.26	-0.23	<ul style="list-style-type: none"> <li>The Urban supply reliability category recorded a higher SAIDI and SAIFI than their respective target values.</li> <li>The major contributor was due to asset related events, environmental impacts and unknown causes which contributed 69% of target value.</li> </ul>
	SAIDI	81.31	104.71	-23.4	
High density rural	SAIFI	2.41	2.46	-0.05	<ul style="list-style-type: none"> <li>The High Density Rural supply reliability category recorded slightly higher SAIDI and SAIFI than their respective target</li> </ul>

<sup>1</sup> Australian Energy Regulator, *Electricity distribution network service providers Service target performance incentive scheme*, November 2009.

<sup>2</sup> Australian Energy Regulator, *Final Distribution Determination Aurora Energy Pty Ltd 2012–13 to 2016–17*, Section 12.1.4 Performance targets, April 2012.

Supply reliability category	Reliability Index	Target	Actual	Variance	Explanation
	SAIDI	235.32	242.61	-7.29	values. <ul style="list-style-type: none"> <li>The major contributor was due to asset related events and environmental impacts which contributed 45% of target value.</li> </ul>
Low density rural	SAIFI	3.22	2.78	0.44	<ul style="list-style-type: none"> <li>The Low Density Rural supply reliability category recorded a lower SAIDI and SAIFI than their respective target values.</li> </ul>
	SAIDI	416.13	320.33	95.8	

### **Section 3:**

All additional information requested by the AER in Schedule 1 of the RIN notice:

- Paragraphs 2-10.

## 2. Compliance

### 2.1 Classification of distribution services

The following is an explanation of the procedures and processes used by TasNetworks to ensure that its distribution services have been classified as set out by the AER in the current Distribution Determination.

#### **Cost capture and financial management systems**

TasNetworks' chart of accounts and costing systems have been established so that both operating expenditure and capital expenditure can be separately accounted for and reported in accordance with TasNetworks' AER approved CAM and regulatory reporting requirements.

In accordance with the AER Guidelines and the Rules provisions, TasNetworks commits to the CAM. TasNetworks' principles, processes and policies all support compliance with the CAM. This includes the processes of attributing costs directly and of allocating shared costs to categories of service.

TasNetworks' cost allocation principles and policies consider the direct allocation of costs to:

- Prescribed transmission services
- Negotiated transmission services
- Non-regulated transmission services
- Standard control distribution services
- Alternative control distribution services
- Negotiated distribution services
- Unregulated or unclassified services

Costs that are not directly allocated to one particular service type (e.g. most corporate overheads) are subject to a shared allocation of costs between the following:

- Prescribed transmission services
- Negotiated transmission services
- Non-regulated transmission services
- Standard control distribution services
- Alternative control distribution services
- Negotiated distribution services
- Unregulated or unclassified services

The chart of accounts structure enables costs to be attributed directly to the categories of services provided by TasNetworks, or automatically allocates costs between them.

When costs are incurred they are allocated to the following chart of account dimensions in the financial systems:

- responsibility centre/department/cost centre - defined as the area in the business that is responsible for the work performed;
- functional area - defined as the nature of the work being performed and is also used to identify between capital and operating expenditure as well as the type of work and associated service classification (work category); and
- cost element/General Ledger code - defined as the nature of the costs incurred such as labour or contracted services.

The above dimensions form the basis of the cost hierarchy. Each dimension is assigned to a service classification. By establishing a clear relationship between dimensions and the categories of services, the financial systems ensure that costs are correctly attributed to the relevant service.

TasNetworks has 3 main types of costs:



- directly allocated or attributable costs (such as timesheet labour, materials, fleet or direct coding to cost number or via journal such as licences fees, invoices for contracted services etc.);
- on costs for labour, materials and fleet; and
- shared costs (allocated on the basis of causal cost allocators).

### **Registration of project cost numbers and approval process**

To ensure jobs are registered against the correct work category, TasNetworks' governance process requires all work program jobs to be submitted to the Finance Team (Finance) for approval of the work category prior to the job being registered. The registering of jobs in the finance systems was limited to the Finance and Planning Teams to minimise the number of incorrect jobs being created. During this process a check is undertaken against the project approval form, which was prepared by the relevant asset engineer, and outlines the type of work to be performed and the justification for the work being undertaken. This ensures the work category selected matched the nature of the work to be performed, and that the job was registered against the appropriate category in the financial service classification hierarchy.

Projects are required to be approved in accordance with TasNetworks gated investment framework. The gated investment governance framework (framework) is TasNetworks' governing document for the management and control of capital and operational investments. The framework ensures that TasNetworks expenditure program is managed to ensure the most effective and efficient use of capital and operating funds it has available. The framework forms part of TasNetworks broader governance framework for the management of business risks. Expenditure must be approved in line with the approved delegations framework.

### **Reporting and monitoring of costs**

Finance distributes monthly reports to management and the Board, outlining the costs incurred against each service classification (work category). An analytical review of the costs is undertaken and any anomalies are investigated (e.g. if any incorrect allocations of costs are identified).

TasNetworks has established a governance committee which consists of senior management from across the business. The gated investment governance process framework is TasNetworks' governing procedure for the management and control of capital and operational expenditure. The committee meets monthly to provide commercial oversight of expenditure on TasNetworks' program of work, and monitor spending in accordance with the AER's service classifications. It provides a forum to discuss future and current commercial and technical aspects of the business' investment decisions.

### **Quarterly expenditure reset/reforecast**

TasNetworks undertakes a detailed review of expenditure incurred against each service classification as part of the quarterly expenditure re-forecasting process. The purpose of this process is to re-forecast the expected end of financial year expenditure. This process engages stakeholders across the business and provides an opportunity for detailed review and interrogation of the expenditure. This process provides comfort that costs are being captured in the financial systems and reported against service classifications as appropriate.

### **Cost allocation methodology**

TasNetworks ensures compliance with the AER approved CAM, which sets out the methodology for allocating overheads to the different service classification types as determined by the AER. For each different overhead cost allocation pool the process undertaken to ensure allocation of overheads is in accordance with the CAM.

A final review was undertaken at the end of the current reporting period to ensure that the allocation of costs to each service classification was in accordance with the AER approved CAM.

## **2.2 Application of negotiated distribution service criteria**

As part of its response to the Annual Reporting RIN for the current reporting period, TasNetworks is required to document the procedures and processes used to ensure that the negotiated distribution service criteria, as set out in the AER's current Distribution Determination, have been applied when determining prices for negotiated distribution services.

TasNetworks has only one form of negotiated distribution service during the current Regulatory Control Period – the introduction of new public lighting technologies. In the 2016-17 regulatory year 14W LED's were trialled, during the 2017-18 regulatory year TasNetworks began offering these as our replacement and new standard offering for minor street

lighting. This technology has been installed as both public and private lights with pricing negotiated using the pricing modelling methodology used for the current Distribution Determination (2017-19).

## **2.3 Identification of negative change events**

TasNetworks' annual revenue cap sets the amount of revenue we can collect from our customers in relation to the provision of distribution network services. The revenue cap for each regulatory year may include a pass through for the unforeseen costs or savings that arise from the occurrence of certain change events that have previously been defined as pass through events by the AER. Negative pass through events are change events that result in TasNetworks realising savings in the costs of providing direct control services. Under Chapter 6 of the Rules, TasNetworks is required to submit written notification to the AER of a negative change event within 90 business days of becoming aware of the occurrence of such an event.

There were no negative change events in the current reporting period.

### 3. Cost allocation to the distribution business

All costs recorded in TasNetworks' audited statutory accounts that relate to or are incurred by TasNetworks in the provision of distribution services must be allocated to TasNetworks in its capacity as a regulated distribution business, for the purposes of the Regulatory Accounting Statements submitted by TasNetworks in response to the RIN.

#### 3.1(a) Costs allocated on a causation basis

TasNetworks is required to identify items in its Regulatory Accounting Statements that, for the current reporting period, have been allocated to its distribution business (excluding unregulated services) on a causation basis, rather than a directly attributable basis, and explain the basis on which this was done.

Item 3.1(a): Costs allocated on a causal, rather than direct basis			
Cost item	3.2(a) Amount	3.2(b) Allocation method & rationale	3.2(c) Allocator(s)
<b>People &amp; Performance</b>	\$4,339,363	<p>The costs associated with TasNetworks' People and Performance Division (which provides HR strategy, change management, HR policies, industrial relations, recruitment, performance management systems, learning and development, HR advice and support, and payroll and timekeeping across the corporation) are allocated to TasNetworks' Distribution Business on the basis of employee numbers.</p> <p>The number of FTEs working in each division was chosen as the allocator for People and Performance costs on the basis that it reflects the amount of effort that the People and Performance Division would reasonably put into providing services to each division and the use of the relevant services by each division.</p>	Allocated on the basis of FTE head count
<b>Information Technology</b>	\$12,579,806	The allocation to services on the basis of applicable causal drivers including IT applications, PCs and mobile devices reflects the strong causal link between the number of TasNetworks people who use PCs and the work load and direct cost to deliver information technology to the business.	Allocated to departments on the basis of applicable causal drivers including IT applications, PCs and mobile devices.
<b>Facilities Management</b>	\$3,318,807	The costs of operating and managing all owned and leased sites occupied by TasNetworks employees is allocated between TasNetworks' services through ABC surveys which have an underlying basis of the drivers of costs such as staff effort, floor space occupied, location and type and nature of facility.	Allocated on the basis of ABC surveys using estimated staff effort and applicable facility drivers.

<b>Item 3.1(a): Costs allocated on a causal, rather than direct basis</b>			
<b>Cost item</b>	<b>3.2(a) Amount</b>	<b>3.2(b) Allocation method &amp; rationale</b>	<b>3.2(c) Allocator(s)</b>
<b>Compliance and Risk</b>	\$1,738,577	The costs associated with TasNetworks' centralised compliance and risk functions (including Insurance) are shared between TasNetworks' services on the basis of ABC surveys using estimated staff effort where a line of sight exists between cost and service, Insurance premiums are allocated on the basis of asset values and the balance allocated on weighted average basis.	Allocated on the basis of ABC surveys using estimated staff effort where a line of sight exists between cost and service, with the balance allocated on weighted average Insurance premiums are allocated on the basis of asset values
<b>Regulation and Revenue Reset</b>	\$1,607,876	The costs associated with regulation and revenue reset is shared between TasNetworks' services on the basis of the ABC surveys using estimated staff effort.	Allocated on the basis of ABC surveys using estimated staff effort.
<b>Customer Engagement &amp; Network Operations Division</b>	\$12,076,886	The costs associated with (the 15 departments) Customer Engagement and network operations Division - the management of network operations, large customer and market relationships, retailer management, the Customer Contact Centre, billing enquiries and dispute resolution, and telecommunications asset, network and customer management is shared between TasNetworks' services on the basis of the ABC surveys using estimated staff effort	Allocated on the basis of ABC surveys using estimated staff effort.
<b>Strategic Asset Management Division</b>	\$6,956,708	The costs associated with (the 11 departments) Strategic Asset Management Division – the management of asset strategy and planning, network analysis and planning is shared between TasNetworks' services on the basis of the ABC surveys using estimated staff effort.	Allocated on the basis of ABC surveys using estimated staff effort.
<b>Works and Service Delivery Management Costs</b>	\$32,927,403	Works and Service Delivery Management Costs include those costs relating to the management, planning, operating and monitoring the works program. This includes a portion of non-productive time for field based employees (down time to attend meetings and undertake administrative tasks). Costs are allocated to the Distribution and then down to service category level on the basis of direct labour hours.	Allocated based on labour hours

### 3.1(b) Costs allocated other than on a direct or causation basis

TasNetworks is required to identify those items in its Regulatory Accounting Statements for the current reporting period that were not allocated to its distribution business on a direct basis, and were also unable to be allocated on a causation basis. For each item identified, TasNetworks is required to explain the reasons why causal allocation could not be applied, indicate the materiality of the amount in question, and the means by which the cost was actually allocated.

Item 3.1(b): Costs allocated other than on a causal or direct basis				
Cost item	3.3(a) Amount	3.3(b) Materiality	3.2(c) Allocation method & rationale	3.2(d) Reasons for non-causal allocation
Office of the CEO and Board, Company Secretary and General Counsel, Strategy and Stakeholder relations, Information Management, Contracts, Financial Analysis and Reporting Group, Fleet Services	\$5,184,611	Office of the CEO, Corp Secretary, Finance and Strategy and Stakeholder relations costs are deemed to be immaterial on the basis that the allocation is less than 10% of the total cost allocation to the Distribution Business.	The costs associated with centralised management and the provision of administrative support for TasNetworks' s are allocated between services on the basis of the weighted average of the total cost allocations that have a direct or causal driver.	<p>While shared services costs are allocated between divisions using causal cost drivers, reflecting the generally variable nature of these costs, corporate costs are allocated using non-causal cost drivers because of the generally fixed nature of these costs, and the fact that they tend to be driven by corporate governance requirements rather than business activity.</p> <p>The weighted average of the total cost allocations that have a causality driver is an effective non-causal allocator of corporate costs because it leverages causal allocators and is based on sound causal data, which is in turn underpinned by reliable and objective data sources.</p>

## 4. Cost allocation to service segments

All costs relating to or incurred in the provision of distribution services and allocated to TasNetworks' distribution business in the current reporting period are required to be allocated to a service segment.<sup>3</sup> All costs allocated from the distribution business to a service segment must be allocated in accordance with the cost allocation methodology approved by the AER.

Tables 3.1 (a) and 3.1(b) detail those costs which are allocated to service segments on a causation basis and those not allocated via a causation basis, the method and the materiality level as applicable to those costs.

## 5. Capitalisation policy

There were no changes in the capitalisation policy from the previous regulatory year.

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<sup>3</sup> Service segment refers to standard control services, alternative control services and negotiated services.

## 6. Demand Management Incentive Allowance

### 6.1. Current DMIA Projects

#### emPOWERing You Trial (formally known as the Tariff Trial)

Network tariff reform is required to deliver on our business strategy of predictable and sustainable pricing. However, we will not be able to successfully deliver on our network tariff strategy without the support of our customers. Therefore the objectives of the emPOWERing You trial include both technical and customer impact aspects. The objectives include:

- Utilise advanced meters and real demand based network tariffs to analyse customer behaviour and customer charge impacts resulting from tariff reform
- Provide sufficient data to support robust analysis which will underpin future refining of the network tariff strategy and network tariff development
- Demonstrate that TasNetworks can effectively support its customers through tariff reform, by providing a platform to consider communication, technologies and to test customer understanding of network tariff offerings
- Demonstrate that customers can be empowered to reduce bills in the short and long term, and that effective tariff choices can help customers make optimal investment decisions in emerging technologies

#### Battery storage on Bruny Island

The purpose of this project is to prove that distributed energy storage can be used to defer network investment. It involves the installation of customer energy storage systems on Bruny Island to manage peak load on the cable and reduce the use of diesel. It will also provide validation on the parameters of distributed storage as a solution to network issues.

The trial also includes a significant research component that will provide information and strategies that can be used to improve future use of battery storage.

The outcomes of this project are:

- Validated information on the cost and reliability of distributed energy storage for network support
- A strategy for integrating increasing portions of solar and energy storage into the electricity network
- Information on the network support payments required for this solution to be applied to other parts of the network

#### Demand management processes

This work package aims to develop the internal systems required to use demand management to solve network constraints. The aim of this work is to:

- Use network support to resolve network issues
- Determine the internal costs for using demand management
- Investigate different levels of automation and type of network support

### 6.2. Explanatory material regarding demand management projects and programmes

TasNetworks notes the AER's advice that the information provided below is intended to satisfy TasNetworks' annual reporting obligations for the purposes of paragraph 3.1.4.1 of the AER's *Demand management incentives scheme for the current regulatory control period*.

#### 6.2(a)(i). Compliance with DMIS section 3.1.3 criteria

##### emPOWERing You Trial

The emPOWERing You Trial complies with the DMIA criteria detailed in section 3.1.3 of the demand management incentive scheme in that:

1. The purpose of this project is to both shift and reduce the demand for standard control services through a non-network alternative
2. This project is broad based and not targeted at a particular network user
3. This project is designed to build demand management capability in TasNetworks and provide a new potentially efficient demand management mechanism
4. This project is tariff based
5. The cost to TasNetworks cannot be recovered through any state or federal scheme. This project is not included in forecast capital or operating expenditure
6. This is operating expenditure. There will be no TasNetworks owned asset generated in this project

#### **Bruny Island distributed energy storage trial**

The Bruny Island Distributed Energy Storage trial complies with the DMIA criteria detailed in section 3.1.3 of the demand management incentive scheme in that:

1. The purpose of this project is to both shift and reduce the demand for standard control services through a non-network alternative
2. This project is broad based and not targeted at a particular network user
3. This project is designed to build demand management capability in TasNetworks and provide a new potentially efficient demand management mechanism
4. This project is not tariff based
5. The cost to TasNetworks cannot be recovered through any state or federal scheme. Although a contribution is sought from ARENA this cannot cover the entire cost. This project is not included in forecast capital or operating expenditure
6. This is operating expenditure. There will be no TasNetworks owned asset generated in this project

#### **Demand management processes**

The demand management processes work complies with the DMIA criteria detailed in section 3.1.3 of the demand management incentive scheme in that:

1. The purpose of this project is to both shift and reduce the demand for standard control services through a non-network alternative
2. This project is broad based and not targeted at a particular network user
3. This project is designed to build demand management capability in TasNetworks
4. This project is not tariff based
5. The cost to TasNetworks cannot be recovered through any state or federal scheme. This project is not included in forecast capital or operating expenditure
6. This is operating expenditure

### **6.2(a)(ii). Nature and scope of demand management projects**

#### **emPOWERing You Trial**

The scope of this project is to:

- Gather data on customer usage patterns to improve models and planning using advanced metering technology; and
- Determine customer's response to new tariff designs and the effect it has on the load they place on the network.

#### **Bruny Island distributed energy storage trial**

The scope of this project is to:

- Determine the parameters for distributed energy storage as a solution to network issues
- Define the operating model for future applications of this sort of technology
- Determine what actions TasNetworks should take to ensure customers install technology in a way that may be used in the future to manage the network



### **Demand management processes**

The scope of this project is to develop suitable tools and processes to manage demand management as a solution to network problems. This will include:

- Resourcing to dispatch the resources as required; and
- Tools to do the dispatching and gather data.

### **6.2(a)(iii). Project aims and expectations**

#### **emPOWERing You Trial**

The outcomes of this project are better models of customer behaviour with and without new tariff designs.

#### **Bruny Island distributed energy storage trial**

The outcomes of this project are intended to be:

- A business case for future use of distributed energy storage for network issues
- A list of critical issues and factors to consider in future use of this type of solution

### **Demand management processes**

The outcome of this project is appropriate tools and processes for managing demand management.

### **6.2(a)(iv). Project selection**

#### **emPOWERing You Trial**

This project was selected because of the lack of data available on customer energy usage and the feedback we have received from customers that they need more information in order to support network tariff reform. This project will rectify this issue and test the effect of new tariff designs on network demand.

This was the only option which provided the required data.

#### **Bruny Island distributed energy storage trial**

Energy storage is predicted to increasingly be installed by customers to manage their own energy use. Energy storage is a promising method of rectifying network constraints at a much lower cost than traditional network solutions. If energy storage is to be used in this capacity however it is critical that TasNetworks understands the parameters of energy storage as a solution. The key outcomes of this trial are expected to be:

- Understand the future use case for distributed energy storage
- Determine what actions TasNetworks could take to enable a future where this form of support could be used

This project was selected after considering a network owned battery on Bruny Island. The distributed storage had greater promise because:

- The customers can receive benefit from their batteries when they are not required for network purposes
- Customers are already installing batteries themselves. With the appropriate conditions TasNetworks may simply be able to harness existing customer-installed batteries to resolve network issues

The trial is designed in two stages:

- An initial subsidy to create an area where there enough batteries to make a meaningful difference to the network
- Ongoing payments to customers as their batteries are used to manage the network

The ongoing payments are designed to be similar in design and magnitude to what would be economic to continue in the future.

#### **Demand management processes**

This project was selected after we determined that we didn't have the appropriate internal tools and processes in place to use demand management. These resources will increasingly be used in the future to manage our network

#### **6.2(a)(v). Project implementation**

##### **emPOWERing You Trial**

This project is being implemented internally.

#### **Bruny Island distributed energy storage trial**

This project is being implemented through an ARENA funded multi party project.

#### **Demand management processes**

This project is being implemented internally.

#### **6.2(a)(vi). Implementation costs**

##### **emPOWERing You Trial actual spend**

<b>Expenditure profile</b>	<b>current reporting period</b>
Actual spend	\$468,457.15

##### **Bruny Island Battery Trial actual spend**

<b>Expenditure profile</b>	<b>current reporting period</b>
Actual spend (net of ARENA funding)	\$558,725.65

#### **Demand management processes**

<b>Expenditure profile</b>	<b>current reporting period</b>
Actual spend	\$32,231.46

#### **6.2(a)(vi). Identifiable benefits**

##### **emPOWERing You Trial**

This project will assist TasNetworks in modelling customer behaviour and the effect of new tariff designs on network demand.

### **Bruny Island distributed energy storage trial**

This project will provide TasNetworks with sufficient experience and information to determine which network issues may be resolved by distributed storage. The batteries are not currently installed and thus there is no data on their usage yet.

### **Demand management processes**

This project will enable us to use demand management operationally to resolve network issues.

### **6.2(b)(i). Cost recovery under jurisdictional incentive schemes**

### **6.2(b)(ii). Cost recovery under other Commonwealth or State Government schemes**

### **6.2(b)(iii). Exclusion from approved capital and operating expenditure**

The costs associated with the aforementioned DMIS/DMIA programmes are not:

- recoverable under any other jurisdictional incentive scheme;
- recoverable under any other Commonwealth/State Government Scheme; or
- included as part of the forecast capital expenditure or forecast operating expenditure included in the current Distribution Determination or any other incentive scheme applied by the current Distribution Determination.

### **6.2(c). DMIA spending in the current reporting period**

The total expenditure in the Current Regulatory Period attributable to the Demand Management Innovation Allowance is \$1,059,414.26. The expenditure is calculated from financial records from TasNetworks' accounting system.

## **6.3 Provide an overview of developments in relation to projects or programs completed in previous years of the regulatory control period, and any results to date**

### **EmPOWERing You trial**

This project:

- Has provided enough high quality customer consumption data to allow us to improve our planning processes
- Has provided network performance data to allow us to better identify problem areas in the network;
- Is providing metering data we can use to develop better tariffs and demand response products, and provide this information back to customers; and
- Is testing customer response to cost reflective demand tariffs.

This project is still in progress

### **CONSORT Bruny Island Battery Trial**

This project:

- Has shown that customer batteries can be aggregated to resolve network issues;
- Is demonstrating innovative new customer-focussed methods of managing network issues;
- Is developing relationships between TasNetworks, service providers, and customers which can be used to provide lower cost solutions to network problems in the future; and
- Is collecting data which we are using to quantify the impact of customer batteries on the network in a winter-peaking region.

This project is still in progress

### **Demand Management Processes**

This project:

- Has developed processes that allow us to operationally manage network support; and
- Has created basic tools that allow us to manage services from DER.

This project is complete

### **Demonstration energy storage system**

This project:

- Has installed an energy storage system with the appropriate interfaces to demonstrate network support; and
- Has validated the network support model now in use on Bruny Island.

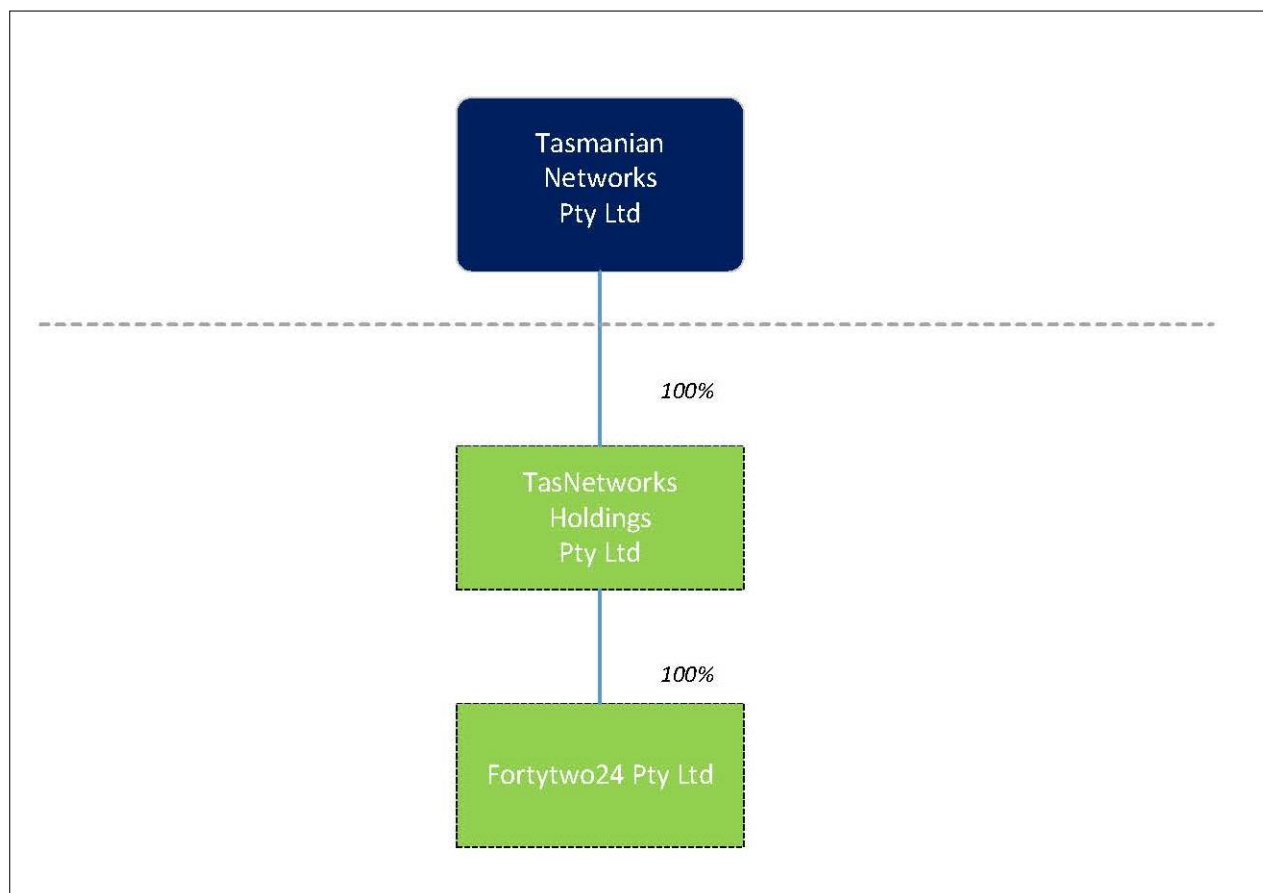
This project is complete

## **7. Tax standard lives**

All tax standard asset lives applied to asset classes are the same as those contained in the PTRM approved by the AER in its 2017-19 Distribution Determination.

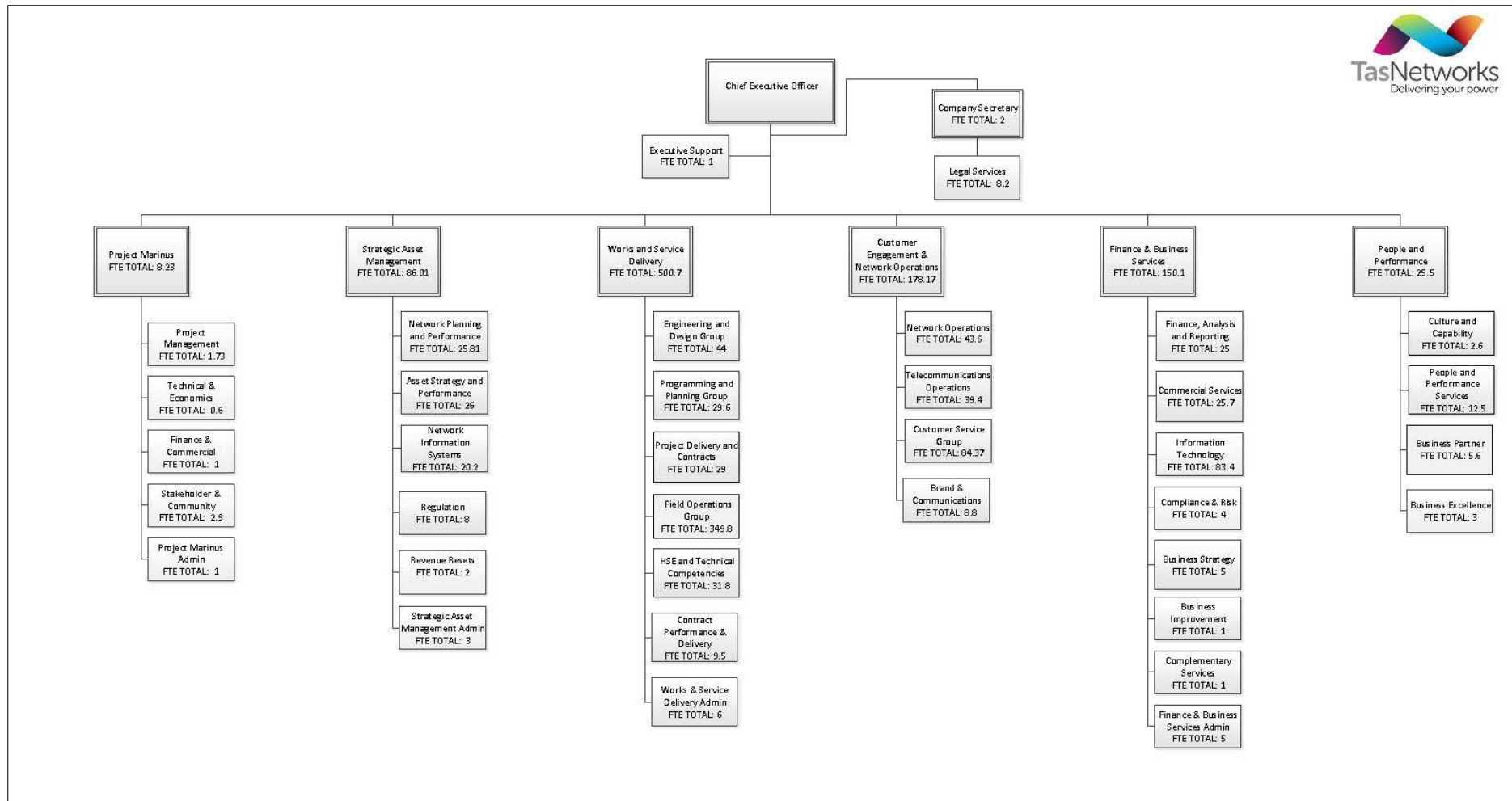
## 8 Charts

### 8.1(a) TasNetworks group structure



## 8.1(b)

## TasNetworks organisational structure



## 10. Audit and review reports

Audit and review certificates from Tasmania Audit Office and GHD are provided as separate attachments with each RIN submission.

## 11. Confidential information

TasNetworks has not sought to restrict disclosure of any of the financial or non-financial information provided in response to the current Annual Reporting RIN. Therefore, TasNetworks consents to the public disclosure by the AER of all information provided in accordance with the aforementioned Regulatory Information Notice.

Title, page and paragraph number of document containing the confidential information	Description of the confidential information.	Topic the confidential information relates to (e.g. capex, opex, the rate of return etc.)	Identify the recognised confidentiality category that the confidential information falls within.	Provide a brief explanation of why the confidential information falls into the selected category.	Specify reasons supporting how and why detriment would be caused from disclosing the confidential information.	Provide any reasons supporting why the identified detriment is not outweighed by the public benefit (especially public benefits such as the effect on the long term interests of consumers).



